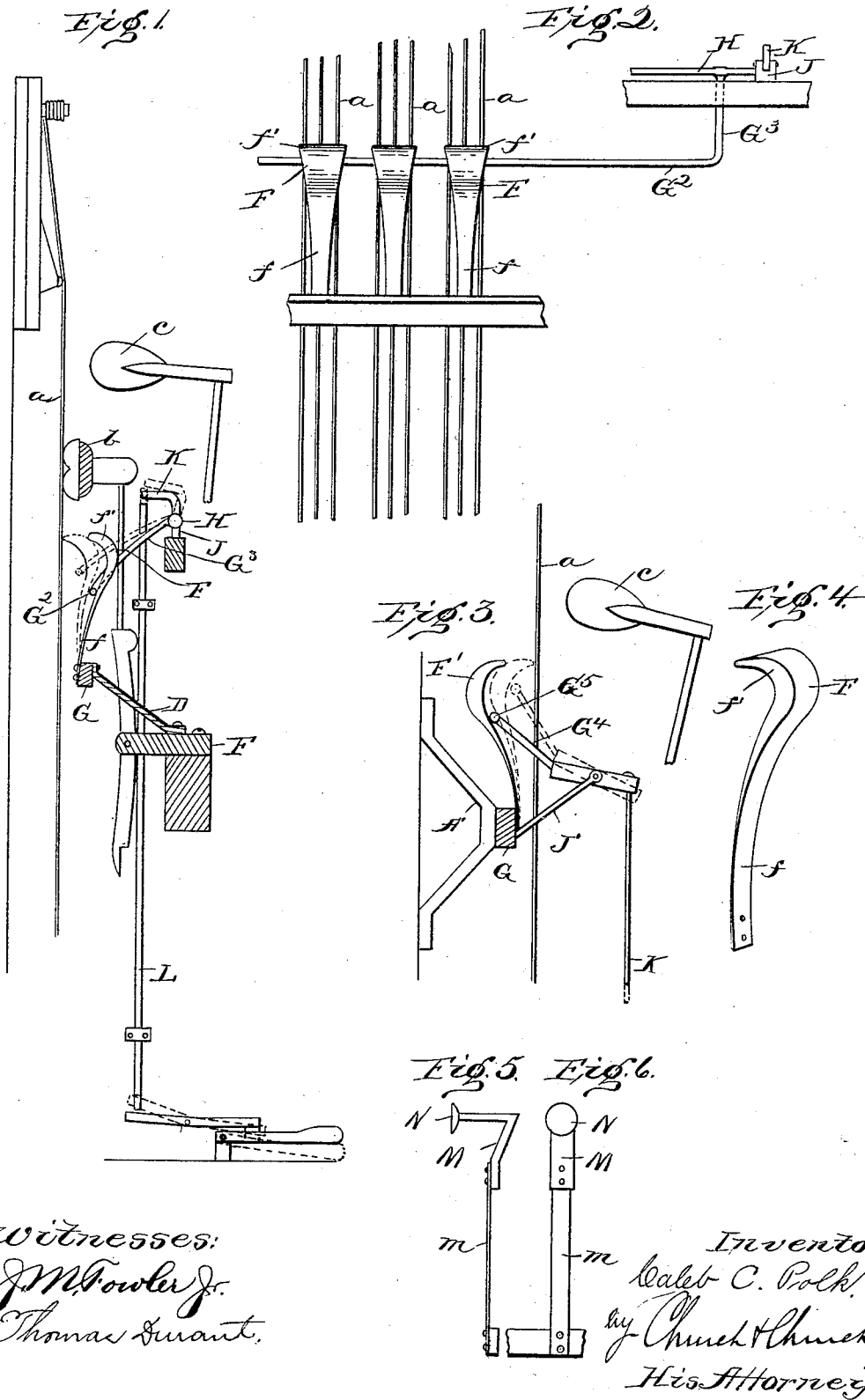


(No Model.)

C. C. POLK.
PIANO ATTACHMENT.

No. 552,141.

Patented Dec. 31, 1895.



UNITED STATES PATENT OFFICE.

CALEB C. POLK, OF VALPARAISO, INDIANA, ASSIGNOR OF ONE-HALF TO
WELLINGTON HUNTINGTON, OF SAME PLACE.

PIANO ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 552,141, dated December 31, 1895.

Application filed June 6, 1895. Serial No. 551,860. (No model.)

To all whom it may concern:

Be it known that I, CALEB C. POLK, of Valparaiso, in the county of Porter, State of Indiana, have invented certain new and useful
5 Improvements in Piano Attachments; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and
10 to the letters of reference marked thereon.

This invention relates to improvements in piano attachments, and has for its object to provide an attachment which, when thrown into operation, will so modify or change the
15 tone of the strings of the piano as to cause the instrument to give forth tones like those of the mandolin, guitar, or other like instrument; and the invention consists in certain novel details of construction and combinations
20 and arrangements of parts, all of which will be described in the following specification and the particular features of novelty pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a sectional elevation of the attachment, showing the application to a piano. Fig. 2 is a front elevation of the same. Fig. 3 is a view
25 showing the strikers placed behind the strings of the piano and the operating mechanism therefor. Fig. 4 is a detail view of one of the strikers. Figs. 5 and 6 are detail views of a modified form of striker.

Similar letters of reference in the several figures indicate the same parts.

35 The letter *a* indicates the strings of an upright piano, *b* the damper, and *c* the hammer, these parts being of the usual construction and needing no further description.

Extending across the piano and preferably
40 in front of the strings is a bar *G*, supported at each end by the arms *D*, carried by the damper-flange *E*. Mounted on this rod are a series of strikers *F*, of any suitable or preferred material, and having a relatively thin
45 shank portion *f* to give them the necessary resiliency or springiness, and are formed with a thickened end or head portion *f'*, having a straight contacting edge, as shown in Fig. 3.

50 Extending across the piano in front of the strikers is a bar *G*², supported at each end by arms *G*³, formed integral with or attached to

said bar, connected to a rock-shaft *H*, pivoted at each end in brackets *J* on the damper-spring rail. At one end the rock-shaft is provided with a crank-arm *K*, and co-operating
55 with this arm is a rod *L* connected with suitable pedal mechanism, whereby the rock-shaft may be operated, as will be understood, for a purpose to be explained.

The operation of the device will now be
60 understood. The strikers are normally held retracted and out of contact with the piano-strings. When, however, it is desired to bring the strikers into operative position, the performer simply presses upon the pedal, and
65 through the described mechanism elevates the bar *G*, whereupon the strikers are released and spring into contact with the strings, the vibration of the string, after being struck by the hammer, vibrating and prolonging the
70 vibration of the strikers. There is, however, another operation of the device which produces a very pleasing effect. The strings of the piano being under great tension, when the
75 strikers are released and strike the strings they will bound and rebound several times against the strings. Now the keys of the piano may be gently pressed down without causing the hammer to strike the wires. At
80 the same time the wires will be free from the dampers belonging to the keys that have been struck. If the strikers be now released, by striking against the strings corresponding to the keys pressed down they will bound and
85 rebound against them and cause them to give forth tones in imitation of the mandolin without being caused to vibrate by a blow of the hammer.

The strikers instead of being made in one piece may be formed of a separate head portion
90 *M* carried by a spring-shank *m*, as shown in Figs. 5 and 6, in which form the head has a disk or circular contacting surface *N*, the head being of any suitable or preferred material, such as celluloid, bone, &c.

95 While the strikers have been described as arranged in front of the strings, they can as well be placed behind them, and such an arrangement is illustrated in Fig. 3. Referring to this figure, *A'* are brackets fastened to the
100 sounding-board or some other part of the back of the piano, one at each end, and secured to

these brackets is a bar G', carrying the spring-
strickers F'. Mounted on this bar are arms J',
upon which is pivotally supported a rock-
shaft H', which carries arms G⁴, upon which
5 in turn is supported a bar G⁵, which normally
holds the strikers back from the strings, as
shown in full lines. The rock-shaft is con-
nected by means of a rod K to a pedal, where-
by the shaft may be turned to release the
10 strikers, as shown in dotted lines, to permit
them to come into contact with the strings.

Having thus described my invention, what
I claim as new is—

1. The combination with the strings, the
15 bar extending across the strings, the flexible
strickers carried thereby, the rod for holding
said strikers out of contact with the strings,
and means for elevating the rod to permit the
strickers to automatically spring into contact
20 with the strings; substantially as described.

2. The combination with the strings, the
bar extending across the strings, the flexible

strickers carried thereby, the rod or bar for
holding the strikers bent back out of contact
with the strings, the rock shaft upon which 25
said last mentioned bar is carried, and means
for rocking said rock shaft to elevate the re-
taining bar, and release the strikers; sub-
stantially as described.

3. The combination with the strings, the 30
bar extending across the strings, the series of
flexible strikers carried thereby, the retaining
rod or bar for holding the strikers retracted,
the rock shafts upon which said retaining bar
is supported, the arm on the rock shaft and 35
the rod cooperating with the arm to rock the
shaft, whereby the retaining bar will be ele-
vated and the strikers thrown into operative
position; substantially as described.

CALEB C. POLK.

Witnesses:

N. L. AGNEW,
HELENE OWEN.